

sity of Maribor, and hosted by the Training Center SRC.SI, Grimsce-Bled, Slovenia on October 21, 2004, <http://ecenter.fov.uni-mb.si/dogodki/innovation-seminar.htm>.

- **The 2nd International Workshop on LivingLabs in eRegion**, November 10, 2005, <http://ecenter.fov.uni-mb.si/elivinglabworkshop>, sponsored and hosted by the Faculty of Organizational Sciences, University of Maribor.

- **The Workshop on Safe and Secure eRegion LivingLab**, sponsored by eCenter, Faculty of Organizational Sciences, University of Maribor and Directorate for Information Society, Ministry of Higher Education, Science, and Technology, Republic of Slovenia in the University Medical Centre, Ljubljana, Slovenia on April 22, 2005, <http://ecenter.fov.uni-mb.si/safesecureregion/index.htm>.

- **Cooperation in the EU funded research projects**, for example mGBL – Mobile Game Based Learning, Coordinator: Karl-Franzens University, Graz, Austria, <http://mg-bl.com>.

- **Cooperation in the Finland and Slovenia eInvoicing LivingLab Initiative**: <http://www.elivinglab.org/invoicing>.

- **Cooperation in CEI - Central European Initiative**: <http://www.ceinet.org/index.php>.

- **Cooperation in the Oracle Mentoring Consortium**, <http://www.elivinglab.org/markets>.

The Ministerial Conference Towards a Knowledge Society - the Nordic Experience (Gothenburg, November 14-15, 2005, Sweden),

http://europa.eu.int/comm/regional_policy/sources/docconf/gotenburg/index.cfm,

had important messages about relevance of cross-border coopera-

tion between regions of the European Union.

The success of the Nordic countries in developing a Knowledge Society has been based on sustained and long-term investments into basic ICT infrastructure, research, and technology dissemination. It shows the importance of and substantial benefits from a well-organized effective public private partnership, set up in a triple-helix of co-operation between enterprises, academia, and public authorities. The conference presented this experience to different participating regions and discussed ways and means of transferring this experience to other regions. It focused on three basic elements: ICT development, eGovernment, and innovation clusters. The Nordic example, in promoting infrastructure and education, and especially the triple-helix approach can be considered a good practical example.

Several measures are being proposed as objectives to best transfer the Nordic experience and disseminate this prospective strategy. These objectives aim at integrating the regions into a European Network, at the facilitation of the transfer of expertise, and at disseminating information about the opportunities offered by the EU in the ICT and the regional development fields to promote sustained regional growth via ICT. The European Commission promotes these approaches via the fruitful co-operation between the Information Society Policies and Structural Fund interventions. An idea of the ICT-Powered eRegion, http://ecenter.fov.uni-mb.si/ict-powered_eregion.pdf is a visible example of that in which the ALADIN Network may be very valuable.

From a larger research perspective, it is expected that the LivingLabs will be important vehicles for an accelerated cooperation between researchers, developers, and users. See for example the following reports:

- **ISTAG - Information Society Technologies Advisory Board Reports**, Information Society Directorate-General, September 2004, <http://www.cordis.lu/ist/istag.htm>

- **European Policy Framework for ICT and New Working Environments**. CollaborationŽWork. The 2005 report on new working environments and practices. Information Society and Media, European Commission, October 2005, <http://www.mosaic-network.org/amiatwork>.

- **Barrett, Craig R. & Brody, William R. (editors): Where In The World Will The Next Big Idea Come From? Council on Competitiveness and the National Innovation Initiative**, Washington DC, Wall Street Journal, February 8, 2006, <http://www.innovateamerica.org>.

ALADIN as a cross-border regional university network is very well-positioned in that direction.

Based on our very positive experience in collaborating with colleagues at the universities of the ALADIN Network, we are looking forward to future areas of cooperation and further innovative actions.

Bernhard R. Katzy⁷

Contributions of ALADIN to eRegion Development: Research and Innovation in a Regional "Living Laboratory"

CeTIM is a research centre at the University Bw Munich and has created the Virtual Enterprise-Lab (VE-Lab) which in its core is a research environment that allows

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combining real-life (the “living”) people and organizations in innovative business scenarios and work environment on the one side, with rigorous experimentation methodologies (the “laboratory”) for new technologies, work methods and organizational designs.

VE-Lab is not windowless clean room in the basement of a university but extends across researchers and industrial partners across the ALADIN region, with the aim to study and research on how to fast configure and coordinate networks of resources be it for business opportunities, collaborative research projects, or for disaster relief. As part of this initiative, CeTIM @ UniBW and eCenter @ UniMaribor are closely collaborating on several European level research and network community building activities. For example, VE-Forum is a European initiative to establish an open science platform and community of ex-

perts in the domain of virtual and network organisation. Through this activity, the ALADIN region has the potential to exchange and share its experiences with EU experts. Concrete examples of activities are workshops on “Managing Collaborative and Distributed Team & Project Works” to address the collaboration challenges and role of ICT when a project team is assembled from network of organizations to respond to occurring instance.

VE-Lab was initially set up in 1998 in order to support ongoing research in virtual organisations and enterprise networks. It obviously offers a critical mass of emerging technologies, especially real-time communication and collaboration support that could have positive impact on the innovativeness and productivity in networked organisational forms. More important however is the accumulated experience in designing research studies and coordi-

nating the cooperation multiple partners like universities, technology suppliers from industry, industrial user companies. So far the CeTIM VE-Lab has been extended to four European countries, and has contributed its methodological experience to several EU and industry funded research programs like the **Castle Project** (EU Innova Funded) on entrepreneurial innovation in satellite navigation clusters, **Foundation Productive Schweiz** (Industry Funded) on productivity of knowledge workers, **Ecospace Project** (EU Funded) on new collaboration environments for knowledge workers, and **CPIM** (Industry funded) on collaborative product innovation management.

VE-Lab is part of a new initiative of creating a regional cluster on “Security” where it contributes its real-time collaboration experience. Already after the Cuba crisis in the early 1960ies the USA and USSR



Figure 1: Example of Virtual Collaboration Scenario developed in the Living-Lab

trusted the security enhancing impact of collaboration when they installed the red telephone between their governments. This rudimentary instrument of crisis and emergency management had to be fast, flexible, and reliable, requirements that still guide the design of much extended contemporary eSecurity processes and systems: "Fast" because terrorist attacks, natural disasters and other crisis need immediate response. "Flexible" because every crisis is different, thus, different agencies, companies, and organizations need to be integrated in the management process quickly. "Reliable" because cross-national and flexible management processes involving different hierarchical levels in different organizations where people do not know each other have to work properly.

Together with regional partners like IABG in Munich, DLR in Oberpfaffenhofen, Siemens Security in Munich, and the University BW the **Security Cluster** is proposed to the Bavarian prime minister for inclusion in the overall Bavarian cluster initiative, which is a future focus of the Bavarian Innovation policy – and a complement to the ALADIN eSecurity initiative.

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Contributions of ALADIN to eRegion Development: The Novi Sad Business School Perspective, Department for Informatics

When observing ALADIN members, one can find that there are se-

ven universities from Central Europe and one business school. That business school is, of course, the Novi Sad Business School (NBS), located on the university campus in Novi Sad (the capital city of the Vojvodina region). Although it is not a part of that university, there is a good will on both sides to integrate the school into the university in this year, during the reform process of Serbia's higher education. NBS is in the newest member of the ALADIN family, but with the prospect of fast growth, as a part of University in Novi Sad.

When you put a frog in the water and slowly raise the temperature to boiling, the frog can not feel it and it does not jump out. When contemplating writing about ALADIN, we realised how we are living with 'frog effect' and does not see how things are changing all the time. The first author of this text counted 115 emails received in last year that are connected with ALADIN. Among the activities of ALADIN, the most interesting are: Workshop on Ensuring a Safe and Secure eRegion, eRegion Development, eInvoicing LivingLab Initiative, eCommerce Conference, Undergraduate and Graduate Students eConference, Association for Information Systems, EU-Wide Study on Trust and Confidence, Oracle iLearning System, eSilk & eAmber Road Regions Meeting, e-Tourism in the Aladin Area, Academic Electronic Marketplace Workshop and eInnovation Ph.D. Study. At this moment, we will try to analyze the state of our region for the first of the mentioned activities, as a small contribution of those excellent ALADIN ideas.

Vojvodina has been involved in cross border and regional cooperation since 2001. Before that, the development of some important sectors, especially environment protection and environmental management was disregarded. However, in recent years some progress has been made in these fields. The Strategy for

development of Vojvodina was created in 2002. Different economic, political and social subjects took part in this process and NBS gave its effort and support. We made the assessment of the level of sustainability for Vojvodina and compared it with other counties in region. Following that, we assessed the sustainability level in the economy and environment in the main municipalities in Vojvodina. The main problem in this work was a lack of systematic and standardized data. The development strategy of Vojvodina defines two main goals:

- agricultural development and organic food production (agriculture represent 82% of land use in Vojvodina) and
- the development of the small and medium enterprises sector.

Intensive agricultural development has already had significant environmental impact including restriction of renewable water resources and access to safe drinking water. Among other environmental problems (environmental problems in urban area, energy uses, cross-border environment impact, low level of environmental risk management, etc.) the development of small and medium enterprises may be one of the new risks for the environment in Vojvodina, because they have significant environmental impact. The nominal impact of enterprise is not necessary a risk for the environment, but increasing number of enterprises in one area can determine territorial consequences. At this level of development, enterprise requests for sustainability were not implemented in creation of business strategies. That is why we pay attention to the importance of environmental management and standard implementation in this sector. Environmental management becomes a core business issue for small and medium enterprises. However, there is a lack of environmental knowledge among the experts included in decision-making processes in the private

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